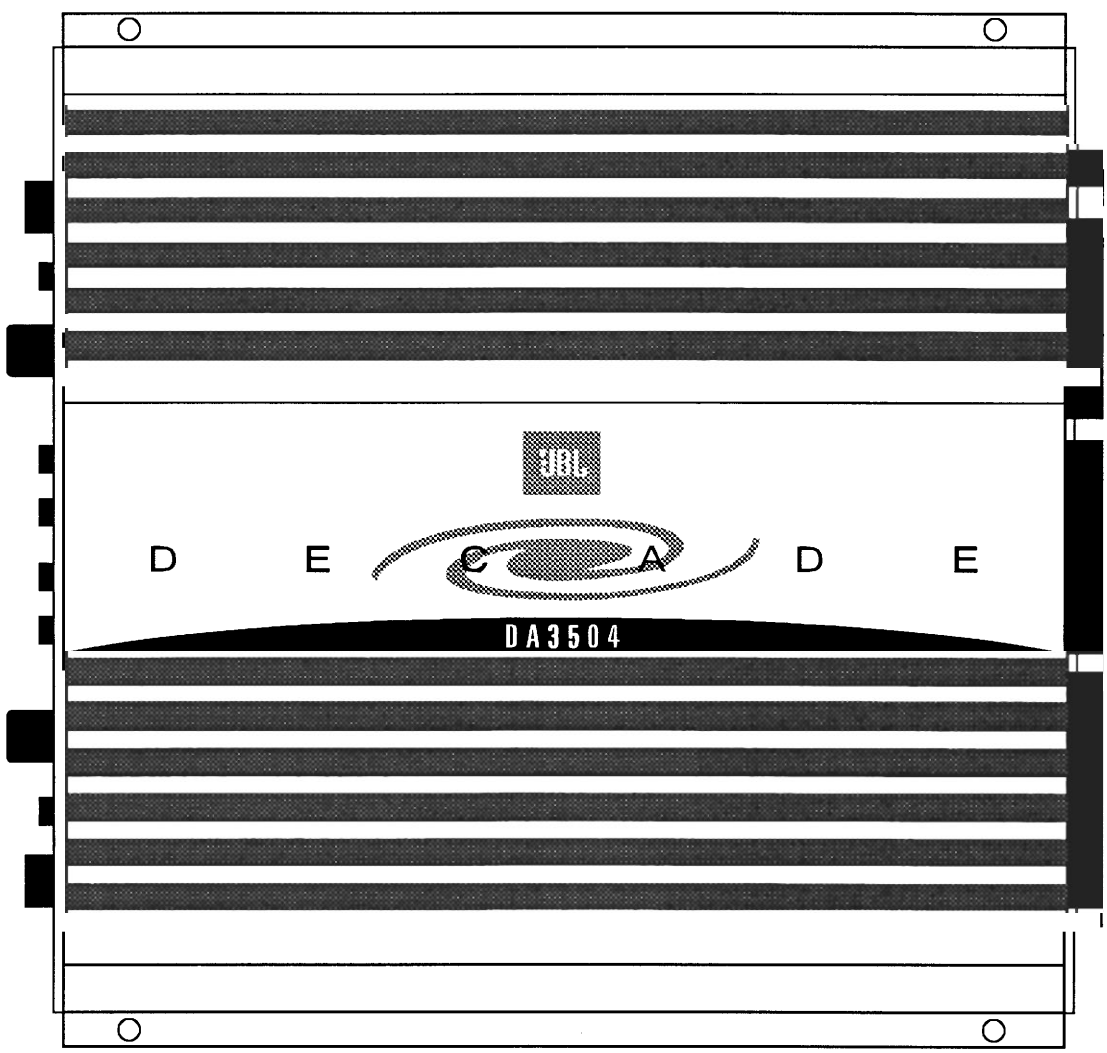
DA3504

4/3/2 CHANNEL AUTOMOTIVE POWER AMPLIFIER

TECHNICAL MANUAL



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A Harman International Company

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SPECIFICATIONS

Number of Channels	2, 3, 4
4 Ohms Stereo	35W x 4
2 Ohms Stereo	50W x 4
4 Ohms Bridged	100W x 2
T.H.D. @ 4 Ohms rated Power	0.1%
Frequency Response	20Hz ~ 20KHz (+1, -2dB)
Signal to noise Ratio	90 dB
Slew Rate	> 13V / us
Channel Separation	> 60 dB
Damping Factor	> 100
Crossover Slope	12 dB / oct.
Fuse Size	30 Amp ATC Type
Line Level Sensitivity	250mV - 4V
Speaker Level Sensitivity	1V - 9V
DC Operating Range	9V - 18V
External Dimensions (Inches)	
Length	11-7/8"
Width	11-5/8"
Depth	2-9/16"
External Dimensions (mms)	
Length	300mm
Width	295mm
Depth	65mm
Weight	10.6 lbs / 4.8Kg.

JBL continually strives to improve its products. New materials, production methods and design refinements are introduced into existing models without notice as a routine expression of our design philosophy. For this reason, DECADE Series Multichannel Automotive Amplifiers may differ in some respect from their published specifications and descriptions, but will always equal or exceed the original specifications unless otherwise stated.

Features

- 4-, 3-, or 2-Channel Operation
- Simultaneous Stereo + Mono Operation
- Advanced MOSFET Oversized Floating Rail Power Supply
- Floating Ground Factory - Head - Unit Speaker - Level input
- Variable Input Sensitivity (250mV - 4V)
- Fully Complementary Output Stage with Class-A Voltage Amplification
- Gold-plated Power, Input and Output Connectors
- 2-Ohm Stable (Stereo)
- Power-on Indicator Badge
- Full Programmable 12dB per Octave Crossover (Low-pass, High-pass, Thru pass)

Test Conditions and Notes

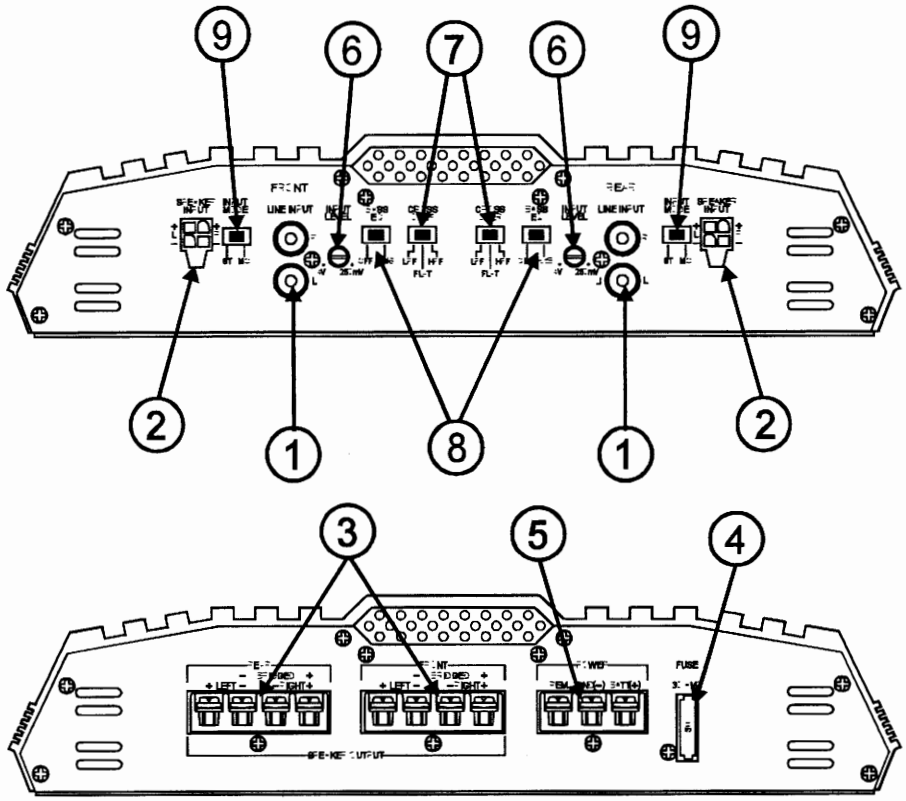
- All tests to be done, unless otherwise specified, from 20 to 20KHz at 14.4V DC into 4 ohm loads and adjust the units gain so that with a .775 volt input signal the unit is at it's maximum rated output. All measurements will be done using an Audio precision system one and the supply voltage.

- An A+ line voltage of 14.4V DC shall be applied to the unit under test for all measurements unless otherwise specified. The voltage applied to the unit shall be measured at the power connection on the Amplifier.

- Signal Source
  Unless otherwise specified, all test shall be conducted with the Audio Signal Generator output configured to be balanced, less than or equal to 50 ohm source impedance, and floating. The signal source "GND" shall be connected to the Amplifier PWR GND at the Amplifier.

- Output Load
  Unless otherwise specified, all tests shall be conducted with 4 ohm resistive loads having less than 10% reactive componets at any frequency below 75KHz. Each resistor shall have a value that remains within 1% while dissipating the rated output of the unit under test.

- Power Indicator LED (on amp chassis top) - LED steadily illuminates for normal operation. LED blinks when protection circuitry is engaged, and during power up.



Controls and Connections

1. Preamp-Level Input Connector - Connects to line-level output from the source unit.

2. Speaker - Level Input Connector - Use this connector for speaker level input signals. A wire harness is supplied for use with this connector. See "Typical System Configuration" section (page 4) for wiring instructions.

3. Speaker Output Connector - Connect speaker wiring to these connectors. See wiring instructions on page 4 for more information.

4. Fuse - 30 Amp ATC type Fuse.

5. Power Connection for 12v+, Gnd and Rem connections for power wires. See wiring instructions on page 4 for more information.

6. Input-Level Control - Adjusts input sensitivity for pre-amp level and speaker level inputs.

7. Crossover Selector - Determines whether the crossover is a High-pass filter @120Hz (HP), a Low-pass filter @80Hz (LP) or unfiltered (FLAT).

8. Bass E.Q. - This switch activates a built-in Bass Boost circuit used to increase low-bass output on the selected speaker output group. Enables bass boost +6dB @ 50Hz

9. ST, or Stereo mode, normal operation. MO, or Mono mode - Sums left and right inputs on that Channel group for bridge mode.

Mounting the Amplifier

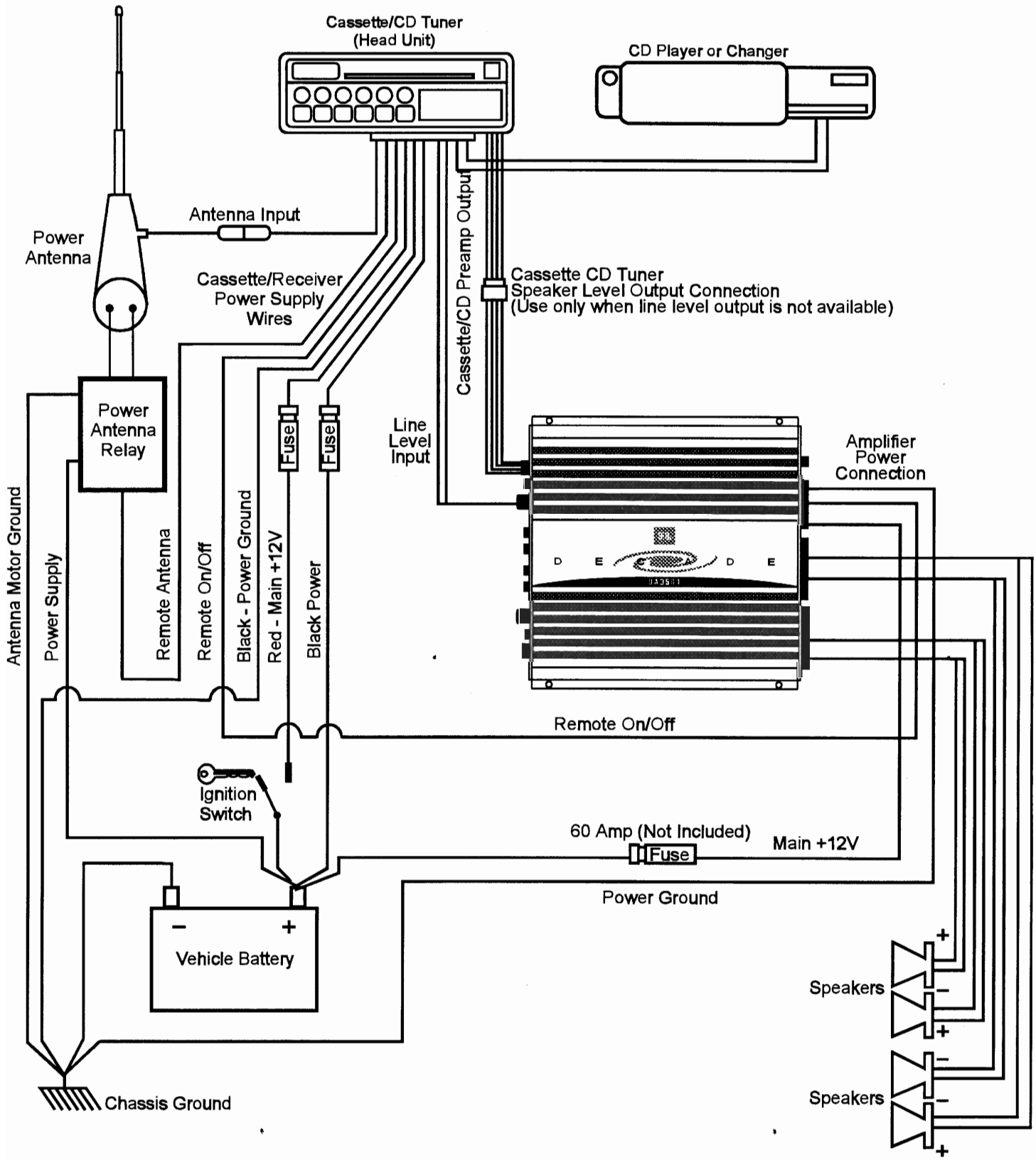
The JBL Decade Series amplifiers can be mounted in virtually any location inside the vehicle. However, make sure to keep the amplifier away from heater vents or ducts.

1. At the chosen site, use the amplifier as a mounting template and mark the locations of the four mounting holes.

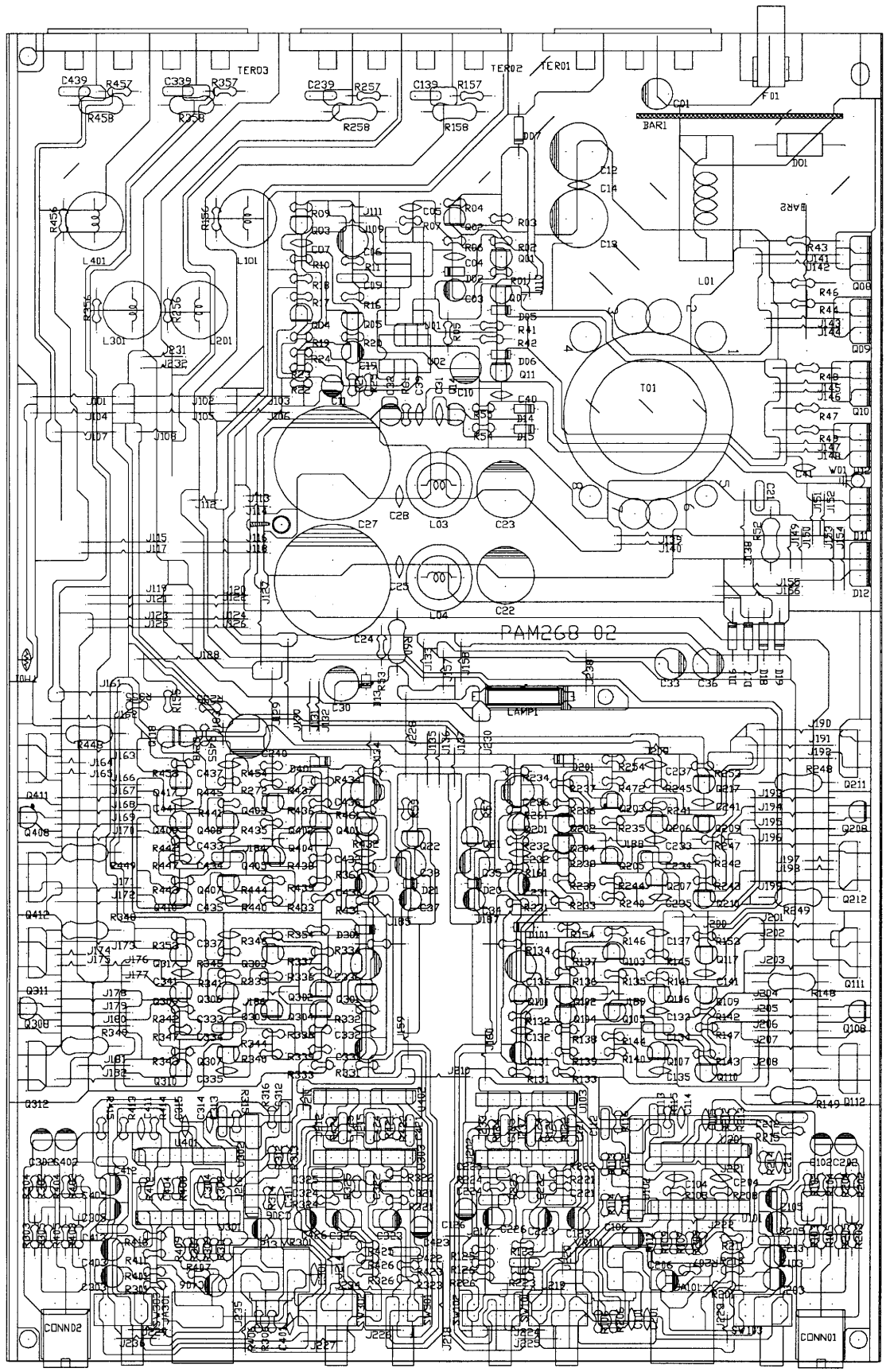
2. Drill a small pilot hole at each marked location.

3. Mount the amplifier and securely tighten the mounting screws.

Typical System Configuration



Printed Circuit Board (Top View)



DA3504 Parts List

Main PCB, Preamp, Crossover, Power Supply and Power Amplifier

REF.NO	PART NO.	DESCRIPTION	Q'TY
F.E.T			
Q08,09,10 Q12	FE100440112	POWER MOSFET(IRFZ44)	4
Q14,101,201 Q301,401	FE000301100	N-CH JFET(KTK30ATMGR)	5
TRANSISTORS			
Q01,21,110 Q210,310,410	TR010233100	SIGNAL PNP(KTA1023Y)	6
Q02,05,102 Q103,107,118 Q102,203,207 Q218,302,303 Q307,402,403 Q407	TR031981100	SIGNAL NPN(C3198GR)	16
Q03,04,07 Q11,104,105 Q106,204,205 Q206,304,305 Q306,404,405 Q406	TR012661200	SIGNAL PNP(KTA1266GR)	16
Q22,109,209 Q309,409	TR010273100	SIGNAL NPN (KTC1027Y)	5
Q111,211,311 Q411	TR107182114	POWER NPN (D718)	4
Q112,212,312 Q412	TR106882214	POWER PNP (B688)	4
Q117,217,317 Q417,108,208 Q308,408	TR032001100	SIGNAL NPN(C3200GR)	8
I.C			
U01	IC017049400	P.W.M (TL494CN)	1
U02	IC002039300	COMPARATOR (KIA393)	1
U101,301	IC109457000	OP AMP (uPC4570HA)	2
U102,103,201 U202,302,303 U401,402	IC007455901	OP AMP (KIA4559S)	8
DIODES			
D01	DI003004031	FAST RECOVERY (PR3004)	1
D05,06,14 D15,101,201 D301,401	DI041480000	SWITCHING SIGNAL (1N4148)	8
D07	DI040040010	RECTIFIER (1N4004)	1
D11,12	DI002502031	FAST RECOVERY (ESC25M-02D)	2
D13	DI052420040	ZENER(12V 0.5W) 1N5242	1
D16,17,18 D19	DI001504111	FAST RECOVERY(PR1504)	4
D20,21	DI052460040	ZENER(16V/0.5W) 1N5246	2
RESISTORS			
R01,02,04 R07,10	RE202047200	CARBON FILM 1/5WJ (4.7K OHM)	5
R03,09,17 R113,123,126 R145,161,213 R223,226,245 R261,313,323 R326,345,361 R413,423,426 R445,461	RE202010300	CARBON FILM 1/5WJ (10K OHM)	23
R05	RE203010002	CARBON FILM 1/4WJ (10 OHM)	1
R06,18	RE202012300	CARBON FILM 1/5WJ (12K OHM)	2
R11	RE202033300	CARBON FILM 1/5WJ (33K OHM)	1
R16	RE202027300	CARBON FILM 1/5WJ (27K OHM)	1
R19,116,216 R316,416	RE202150300	CARBON FILM 1/5WJ (150K OHM)	5
R20,54,55 R121,122,221 R222,321,322 R421,422	RE202047300	CARBON FILM 1/5WJ (47K OHM)	11
R21	RE202022502	CARBON FILM 1/5WJ (2.2M)	1
R22,61	RE202022300	CARBON FILM 1/5WJ (22K OHM)	2
R23,115,215 R315,415	RE202068200	CARBON FILM 1/5WJ (6.8K OHM)	5
R24	RE202043200	CARBON FILM 1/5WJ (4.3K OHM)	1
R25,106,206 R308,406	RE202033200	CARBON FILM 1/5WJ (3.3K OHM)	5
R41,42	RE203220000	CARBON FILM 1/4WJ (220 OHM)	2
R43,44,48 R49	RE202100000	CARBON FILM 1/5WJ (100 OHM)	4
R46,47,101 R135,140,201 R235,240,301 R335,340,401 R435,440	RE202001300	CARBON FILM 1/5WJ (1K OHM)	14
R52	RE306100000	METAL FILM 2WJ (100 OHM)	1
R53	RE204010300	CARBON FILM 1/2WJ (10K OHM)	1
R57,59	RE202022200	CARBON FILM 1/5WJ (2.2K OHM)	2
R60	RE306220000	METAL FILM 2WJ (220 OHM)	1
R102,155,202 R255,302,355 R402,455	RE202056300	CARBON FILM 1/5WJ (56K OHM)	8
R103,203,303 R403	RE204018000	CARBON FILM 1/2WJ (120 OHM)	4
R104,204,304 R404	RE202082000	CARBON FILM 1/5WJ (82 OHM)	4
R105,205,305 R405	RE204100000	CARBON FILM 1/2WJ (200 OHM)	4
R107,207,307 R407	RE212047300	METAL FILM 1/5WF (47K OHM)	4
R108,308	RE212082300	METAL FILM 1/5WF (82K OHM)	2
R109,309	RE212020300	METAL FILM 1/5WF (20K OHM)	2
R111,211,311 R411	RE202100300	CARBON FILM 1/5WJ (100K OHM)	4
R211,212,312 R412	RE202011300	CARBON FILM 1/5WJ (11K OHM)	4
R114,214,314 R414	RE202043300	CARBON FILM 1/5WJ (43K OHM)	4

DA3504 Parts List

REF.NO	PART NO.	DESCRIPTION	Q'TY
R124,224,324 R424	RE202020300	CARBON FILM 1/5WJ (20K OHM)	4
R125,209,225 R325,409,425	RE202039300	CARBON FILM 1/5WJ (39K OHM)	6
R131,231,331 R431	RE212056200	METAL FILM 1/5WF (5.6K OHM)	4
R132,232,332 R432	RE212022300	METAL FILM 1/5WF (22K OHM)	4
R133,134,233 R234,333,334 R433,434	RE202056200	CARBON FILM 1/5WJ (5.6K OHM)	8
R135137,138 R139,236,237 R238,239,336 R337,338,339 R436,437,438 R439	RE202022000	CARBON FILM 1/5WJ (22 OHM)	16
R141,144,241 R244,341,344 R441,444	RE202047000	CARBON FILM 1/5WJ (47 OHM)	8
R142,242,342 R442	RE202039200	CARBON FILM 1/5WJ (3.9K OHM)	4
R143,243,343 R443	RE202027200	CARBON FILM 1/5WJ (2.7K OHM)	4
R146,272,346 R472	RE202820000	CARBON FILM 1/5WJ (820 OHM)	4
R147,247,347 R447	RE202150000	CARBON FILM 1/5WJ (150 OHM)	4
R148,149,248 R249,348,349 R448,449	RE507001801	WIRE WOUND 3WJ (0.1 OHM)	8
R153,253,353 R453	RE202015200	CARBON FILM 1/5WJ (1.5K OHM)	4
R154,254,354 R454	RE202015300	CARBON FILM 1/5WJ (15K OHM)	4
R155,157,256 R257,356,357 R455,457	RE204047800	CARBON FILM 1/2WJ (4.7 OHM)	8
R158,258,358 R458	RE306680000	METAL FILM 2WJ (680 OHM)	4
R208,408	RE212240300	METAL FILM 1/5WF (240K OHM)	2
TH01	TH100500010	50K (FTD5-350) Thermistor	1

CAPACITORS

REF.NO	PART NO.	DESCRIPTION	Q'TY
C01	EC050171010	ELECT"SXE" (100uF/25V)	1
C03,34,37	EC050111000	ELECT"SMS" (10uF/25V)	3
C06,10,136 C236,336,436	EC040111010	ELECT"SMS" (100uF/16V)	6
C11,102,105 C202,205	EC040114700	ELECT "SMS" (47uF/16V)	5
C12,13	EC061311021	ELECT"RX" (1000uF/35V)	2
C19	EC070110100	ELECT"SMS"(1uF/50V)	1
C22,23	EC060114710	ELECT"SMS"(470uF/35V)	2
C24,27	EC060064721	ELECT"DL"(4700uF/35V)	2
C30,35,38	EC040112210	ELECT"SMS" (220uF/16V)	3
C32,103,106 C123,126,203 C206,223,226 C302,305,303 C306,323,326 C402,403,405 C406,423,426	EC040111000	ELECT"SMS" (10uF/16V)	21
C33,36	EC060111010	ELECT"SMS" (100uF/35V)	2
C131,231,331 C431	EC070112260	ELECT"SMS" (2.2uF/50V)	4
C240	EC040114710	ELECT "SMS" (470uF/16V)	1
C04,25,28 C39,40,41 C114,115,314 C315	CC011473500	CERAMIC 50V (0.047uF)	10
C05,14,141 C241,341,441	CC011104600	CERAMIC 50V (0.1uF)	6
C31	CC011220100	CERAMIC 50V "NPO"(22pF)	1
C104,304	CC011150100	CERAMIC 50V "NPO"(15pF)	2
C111,137,211 C237,311,337 C411,437	CC011470100	CERAMIC 50V "NPO"(47pF)	8
C204,404	CC011050100	CERAMIC 50V "NPO"(5pF)	2
C132,232,332 C432	CC011680100	CERAMIC 50V "NPO"(68pF)	4
C133,135,233 C235,333,335 C433,435,101 C201,301,401	CC011101100	CERAMIC 50V "NPO"(100pF)	12
C09	MC001110200	MYLAR 5% 50V (0.1nF)	1
C21	MC001122200	MYLAR 5% 50V (2.2nF)	1
C112,113,139 C212,213,239 C312,313,339 C412,413,439	MC001110400	MYLAR 5% 50V (0.1uF)	12
C121,221,321 C421	MC001168310	MYLAR 5% 50V (0.068uF)	4
C122,222,322 C422	MC001127300	MYLAR 5% 50V (0.027uF)	4
C124,125,134 C224,225,234 C324,325,334 C424,425,434	MC001247303	MYLAR 5% 50V (0.047uF)	12

COIL

REF.NO	PART NO.	DESCRIPTION	Q'TY
L03,04	AR312152750	DRUM CORE (CL-500)	2
L01	AR201250130	BAR CORE (CL-300+)	1
T01	TF136061101	TF136061101 TROIDAL	1
L101,201,301 L401	AR112801450	AIR CORE (CL-200C)	4

MISCELLANEOUS

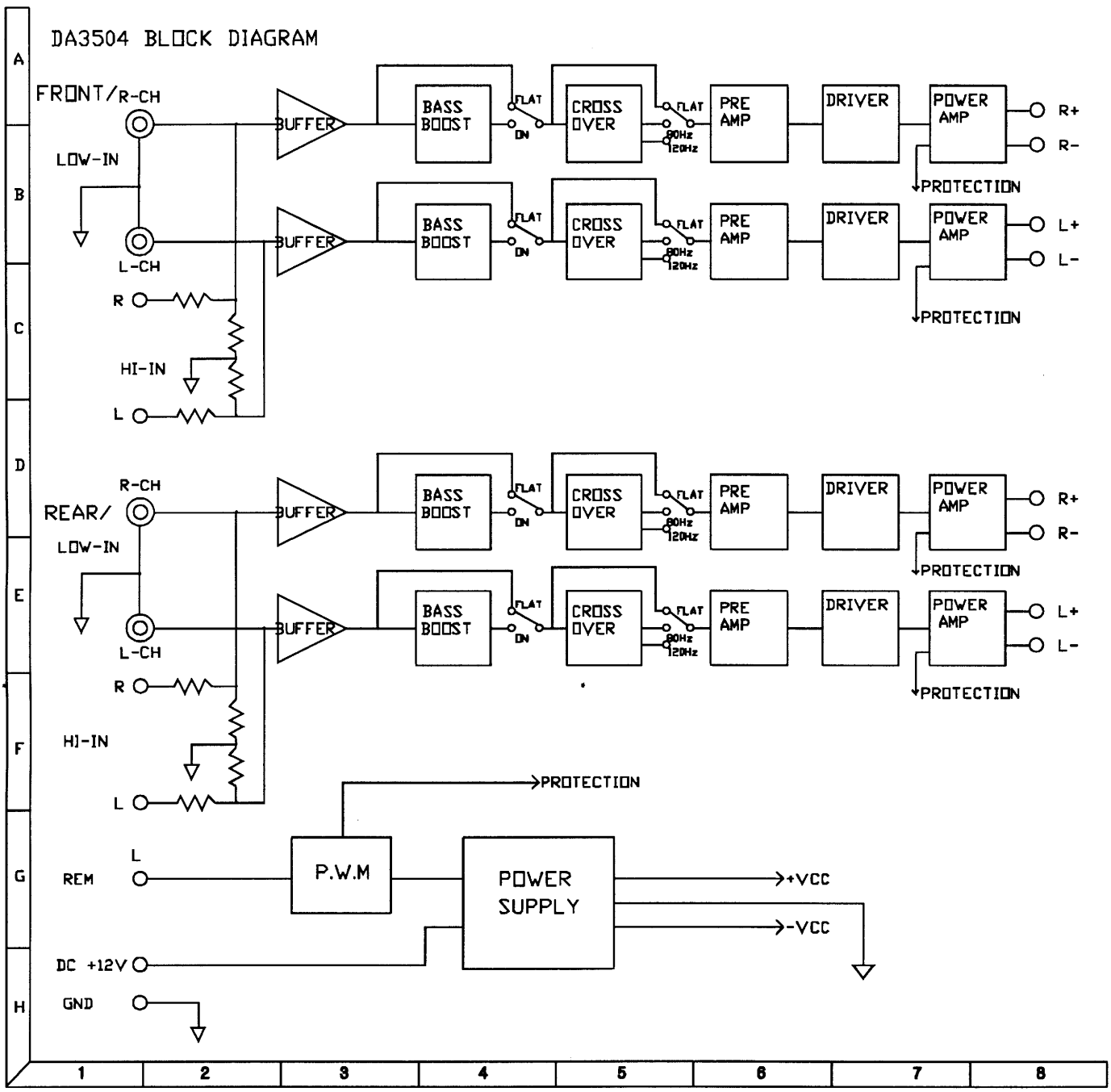
REF.NO	PART NO.	DESCRIPTION	Q'TY
VR101,301	VO112503611	POTENTIOMETER 50K dual gang	2
BAR2	JU100003500	"0" ohm JUMPER NI-PLATED (35m/m)	1
BAR1	JU100005000	"0" OHM JUMPER NI-PLATED (50m/m)	1
CON1,2	CN206040000	WAFER (LAD1140-04)	2
F01	FH000940200	FUSE HOLDER (Y-FH9402)	1
SW101,103,302 SW303	SW022221900	SLIDE SWITCH (JSS2219)	4
SW102,301	SW023231900	SLIDE SWITCH (JSS2319)	2
W01(GND)	WI022000600	107 AWG#22 BK 50m/m	1
JA101,301	JA020582001	RCA JACK (KJB-582)	2
TER01	TE000060000	POWER TERMINAL(TM006-00)	1
TER02,03	TE000090000	SPEAKER TERMINAL(TM009-00)	2
LAMP01	DS500980302	LAMP (14V/80mA)	1
TH,TR	TB001000100	TEFLON TUBE 0.7PHI (10m/m)	6

DA3504 Parts List

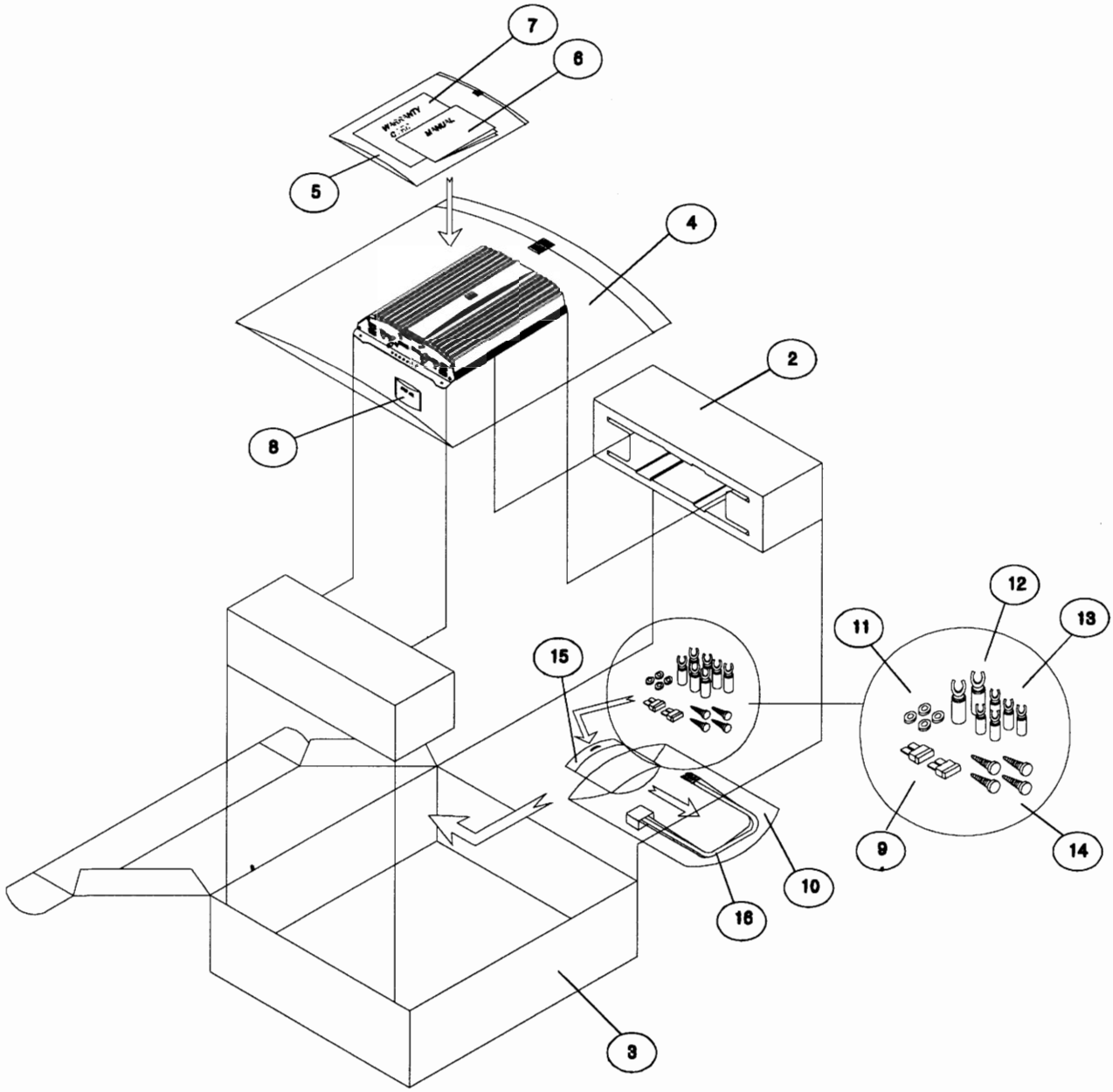
REF.NO	PART NO.	DESCRIPTION	Q'TY
POWER TR	mP010010000	PAPER SPACER (15x8x0.5t)	8
FET,DIODE	mP015008000	PAPER SPACER (10x10x5t)	6
F01	FU030120301	AUTO FUSE (30A)	1

MECHANICAL (REFER TO PAGE 16)

MAIN HEAT SINK	MAHS6525440	AL/EXTRUDING 300m/m	1
FRONT PANEL	MAFP6525390	EGI 1.2t	1
REAR PANEL	MARP6525410	EGI 1.2t	1
BOTTOM COVER	MABC6525430	EGI 1.2t	1
AIR GRILL	MAAG6546370	EGI 1.0t	2
ILLUMINATOR	MAIL0146521	ACRYLIC	1
ILLUMINATOR BRACKET	MABR0146530	EGI 0.8t	1
TR BRACKET (A)	MABR0341160	SBHG 110.0x22.5x2.0t	1
TR BRACKET (B)	MABR0341170	SBHG 110.0x25.5x2.0t	1
TR BRACKET (C)	MABR0341240	SBHG 200.0x22.5x2.0t	1
TR BRACKET (D)	MABR0341250	SBHG 200.0x25.5x2.0t	1
TR-BKT/ CUSHION (A)	MOCU0248660	FIBER 110.0x20.0x0.5t	1
TR-BKT/ CUSHION (B)	MOCU0248690	FIBER 200.0x20.0x0.5t	1
SILICON PAD (A)	MASP0141260	(SP1000) 110.0x22.0x0.3t	1
SILICON PAD (B)	MASP0147350	(SP1000) 200.0x22.0x0.3t	1
RUBBER CUSHION(A)	MOCU0134640	RUBBER 10.0x20.0x1.0t	1
RUBBER CUSHION(B)	MOCU0141330	RUBBER 10.0x20.0x1.6t	4
EVA CUSHION (A)	MOCU0640150	EVA 10.0x20.0x5.0t	5
EVA CUSHION (B)	MOCU0640170	EVA 10.0x20.0x6.0t	2
PAPER SPACER	MOCU0441490	FIBER 200.0x6.0x0.5t	2
SCREW	MNSC0423005	STT2 BH 3x5 NI	1
SCREW	MBSC0433006	STT2 PH 3x6 BK	4
SCREW	MBSC0423006	STT2 BH 3x6 BK	18
SCREW	MNSC0423006	STT2 BH 3x6 NI	4
SCREW	MBSC0423008	STT2 BH 3x8 BK	5
SCREW	MNSC0423015	STT2 BH 3x15 NI	1
SCREW	MBSC0532006	STT1 PH 2x6 BK	1
SCREW	MNSC0034016	SMP 4x16 NI	6
SWITCH DECAL	MOSD0340230	FELT 15.0x7.0x0.3t	6
PLAIN WASHER	MOPL0140440	PHI 18.0	4
ILLUMINATOR FILM	MALF0146560	REXSAN 17.7x15.0x0.3t	1
SERIAL NO	MOSE6535670		1
STICKER	MOST0135660		1


DA3504 BLOCK DIAGRAM
FRONT/R-CH
LOW-IN
L-CH
R
HI-IN
L
REAR/
R-CH
LOW-IN
L-CH
R
HI-IN
L
BUFFER
BASS BOOST
FLAT
IN
CROSS OVER
80Hz
120Hz
PRE AMP
DRIVER
POWER AMP
R+
R-
L+
L-
PROTECTION
P.W.M
REM
POWER SUPPLY
+VCC
-VCC
DC +12V
GND
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

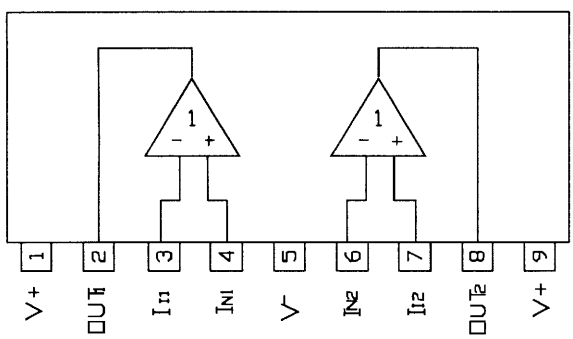
Packaging Exploded View



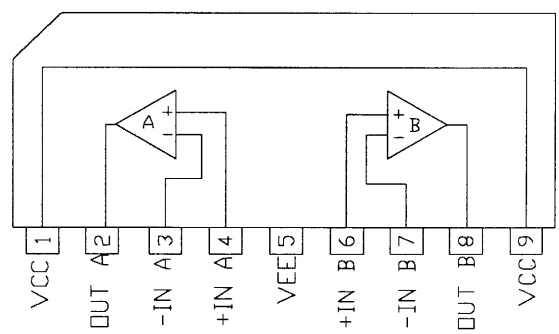
* PACKAGE *

NO	DESCRIPTION	REF NO.	Q'TY	NO	DESCRIPTION	REF NO.	Q'TY
1	MACB0235251	MASTER CARTON	1/4		* ACCESSORY *		
2	MASN0225500	FOAM ENDS	2	9	FU030120301	AUTO FUSE	2
3	MAGB0525470	BEAUTY BOX	1	10	WI20043004	WIRE ASS'Y (30m/m)	1
4	MAPB0135260	POLY BAG (A)	1	11	MOCU0141670	RUBBER RING	4
5	MAPB0141000	POLY BAG (B)	1	12	MOOL0100010	OPEN LUG (A)	9
6	MOMA0147090	MANUAL	1	13	MOOL0100020	OPEN LUG (B)	2
7	NOWT0147110	W/CARD	1	14	MBSC0524020	SCREW	4
8	MOSG0147100	SILICAGEL	1	15	MAPB014010	POLY BAG (C)	1
				16	MAPB0135600	POLY BAG (D)	1

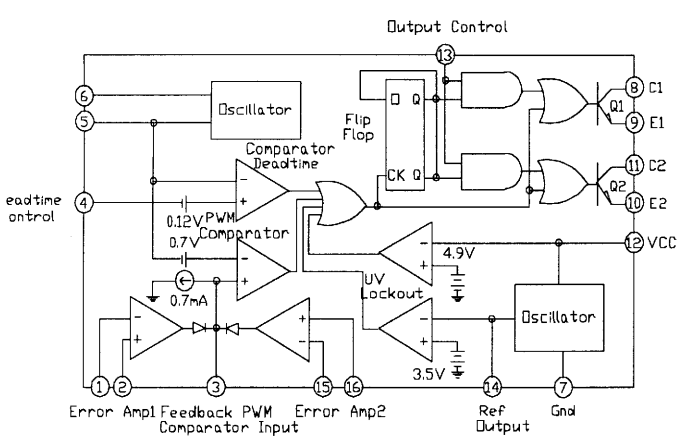
U101,301 (uPC4570HA) OP AMP



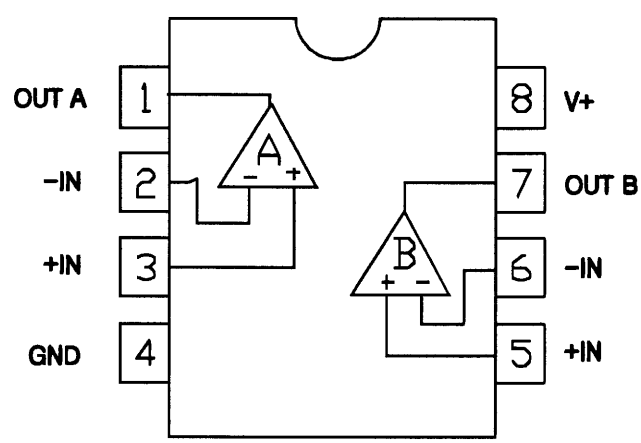
U102,103,201,202,302,303,401,402 (KIA4559S) OP AMP



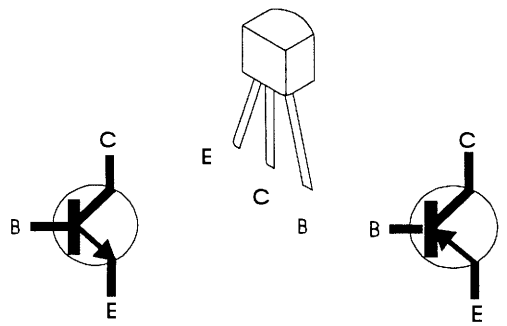
U01 (TL494CN) P.W.M IC



U02 (KIA393P) COMPARATOR



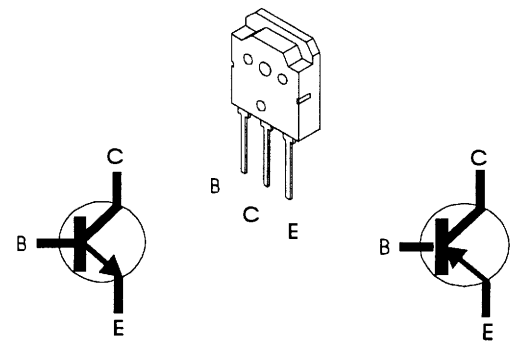
Transistor Diagrams



* KTC3198GR *
Q02,05,102,103,107,118
Q202,203,207,218,302
Q303,307,402,403,407

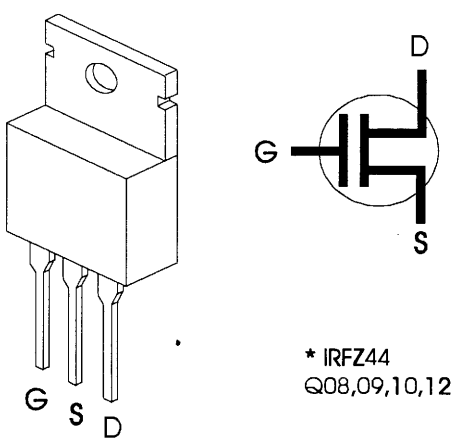
* KTA1266GR *
Q03,04,07,11,104,105,106
Q204,205,206,304,305,306
Q404,405,406

* KTC3200GR *
Q117,217,317,417,
Q108,208,308,408

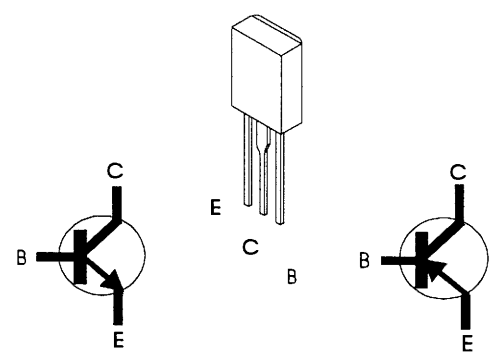


* KTD718 *
Q111,211,311,411

* KTB718 *
Q112,212,312,412

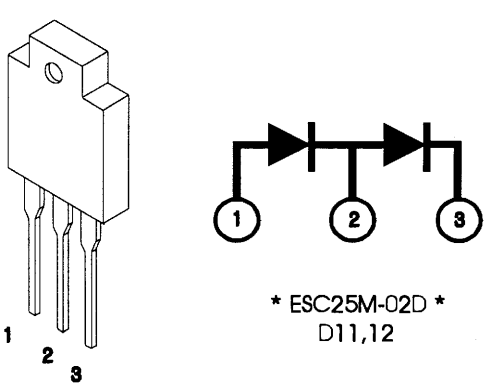


* IRFZ44
Q08,09,10,12

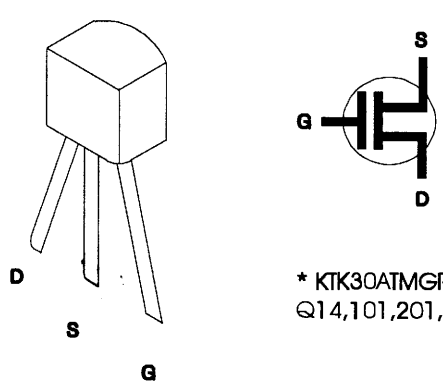


* KTC1027Y *
Q22,109,209,309,409

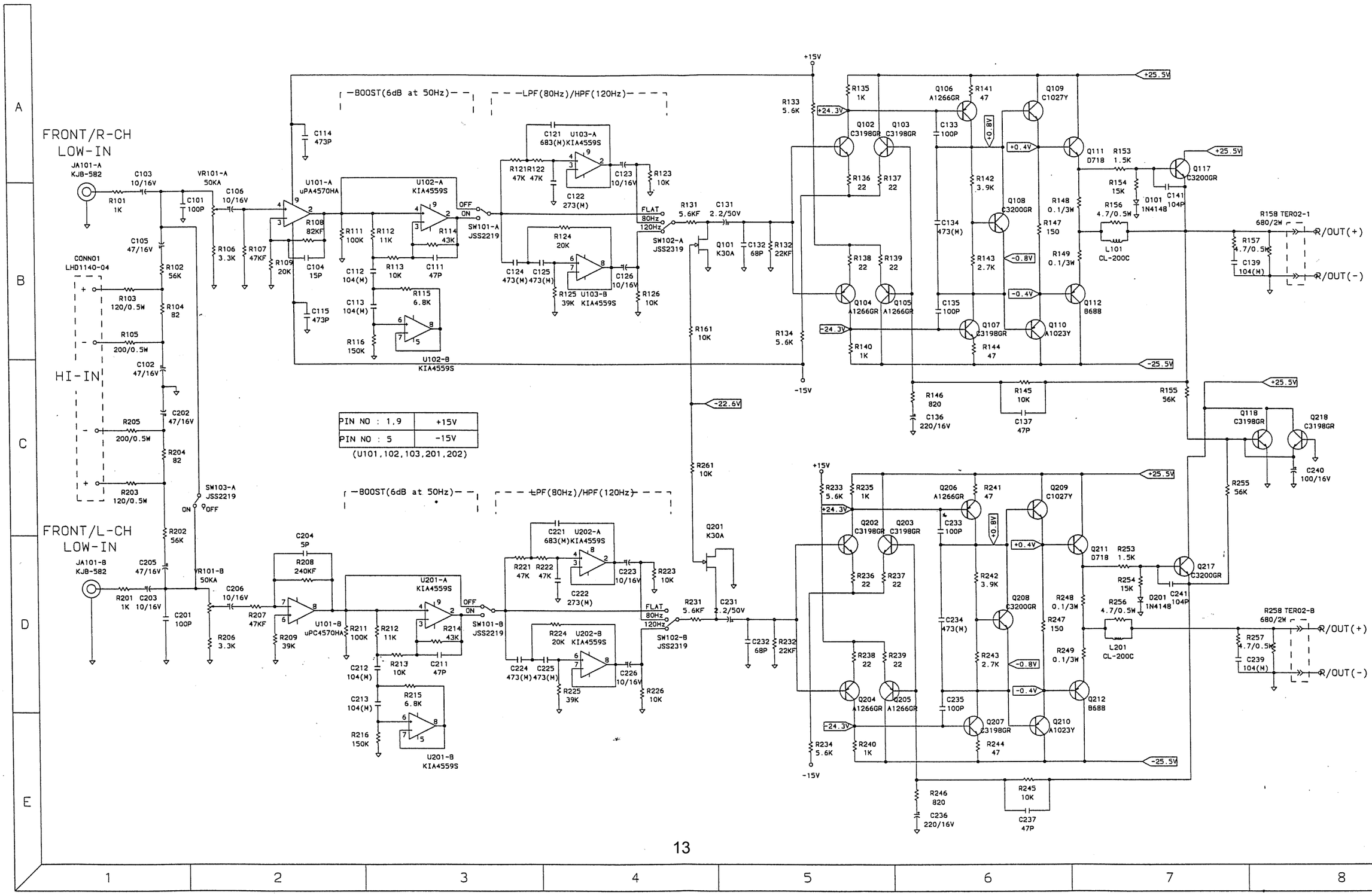
* KTA1023Y *
Q01,21,110,210,310,410

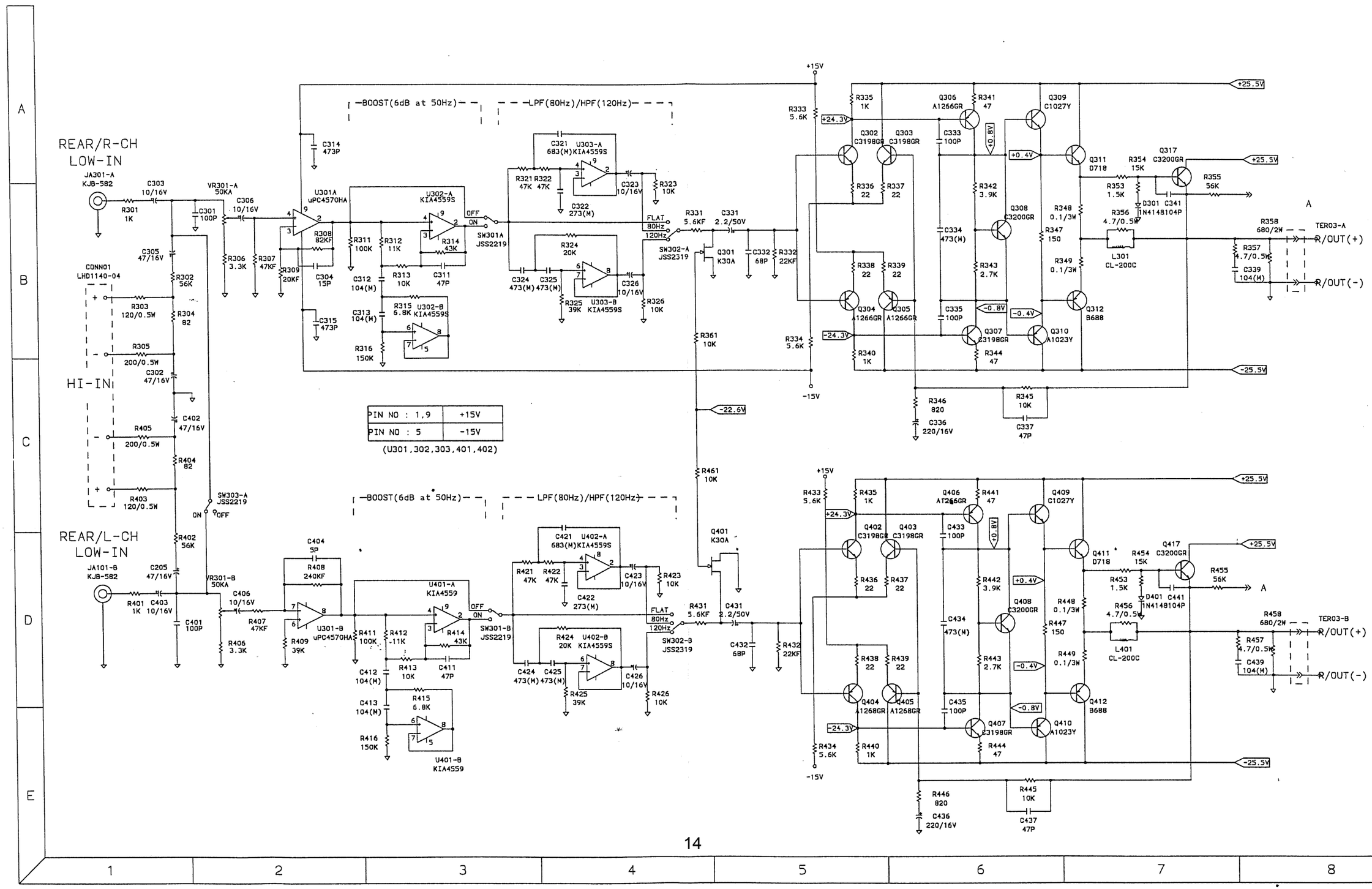


* ESC25M-02D *
D11,12



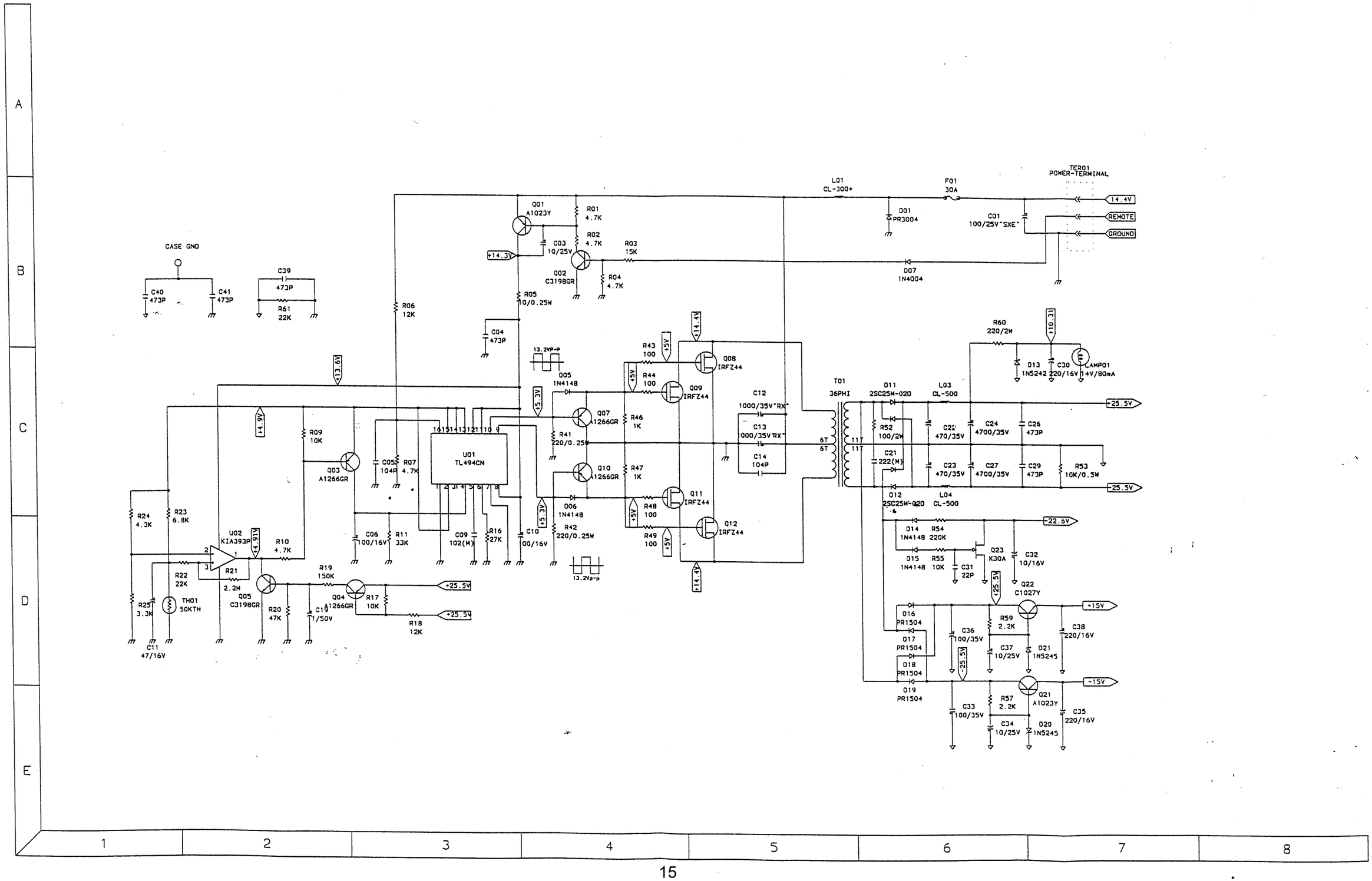
* KTK30ATMGR(Y)
Q14,101,201,301,401


FRONT/R-CH
LOW-IN
HI-IN
FRONT/L-CH
LOW-IN
JA101-A KJB-582
JA101-B KJB-582
CONN01 LHD1140-04
VR101-A 50KA
VR101-B 50KA
U101-A uPA4570HA
U101-B uPC4570HA
U102-A KIA4559S
U102-B KIA4559S
U103-A 683(M)KIA4559S
U103-B KIA4559S
U201-A KIA4559S
U201-B KIA4559S
U202-A 683(M)KIA4559S
U202-B 20K KIA4559S
-BOOST(6dB at 50Hz)-
-LPF(80Hz)/HPF(120Hz)-
SW101-A JSS2219
SW102-A JSS2319
SW103-A JSS2219
SW101-B JSS2219
SW102-B JSS2319
OFF
ON
FLAT
80Hz
120Hz
+15V
-15V
+25.5V
-25.5V
+24.3V
-24.3V
+0.8V
-0.8V
+0.4V
-0.4V
-22.6V
R/OUT(+)
R/OUT(-)
L101 CL-200C
L201 CL-200C
D101 1N4148
D201 1N4148
Q101 K30A
Q201 K30A
Q102 C3198GR
Q103 C3198GR
Q104 A1266GR
Q105 A1266GR
Q106 A1266GR
Q107 C3198GR
Q108 C3200GR
Q109 C1027Y
Q110 A1023Y
Q111 D718
Q112 B688
Q117 C3200GR
Q118 C3198GR
Q202 C3198GR
Q203 C3198GR
Q204 A1266GR
Q205 A1266GR
Q206 A1266GR
Q207 C3198GR
Q208 C3200GR
Q209 C1027Y
Q210 A1023Y
Q211 D718
Q212 B688
Q217 C3200GR
Q218 C3198GR
PIN NO : 1,9 +15V
PIN NO : 5 -15V
(U101,102,103,201,202)

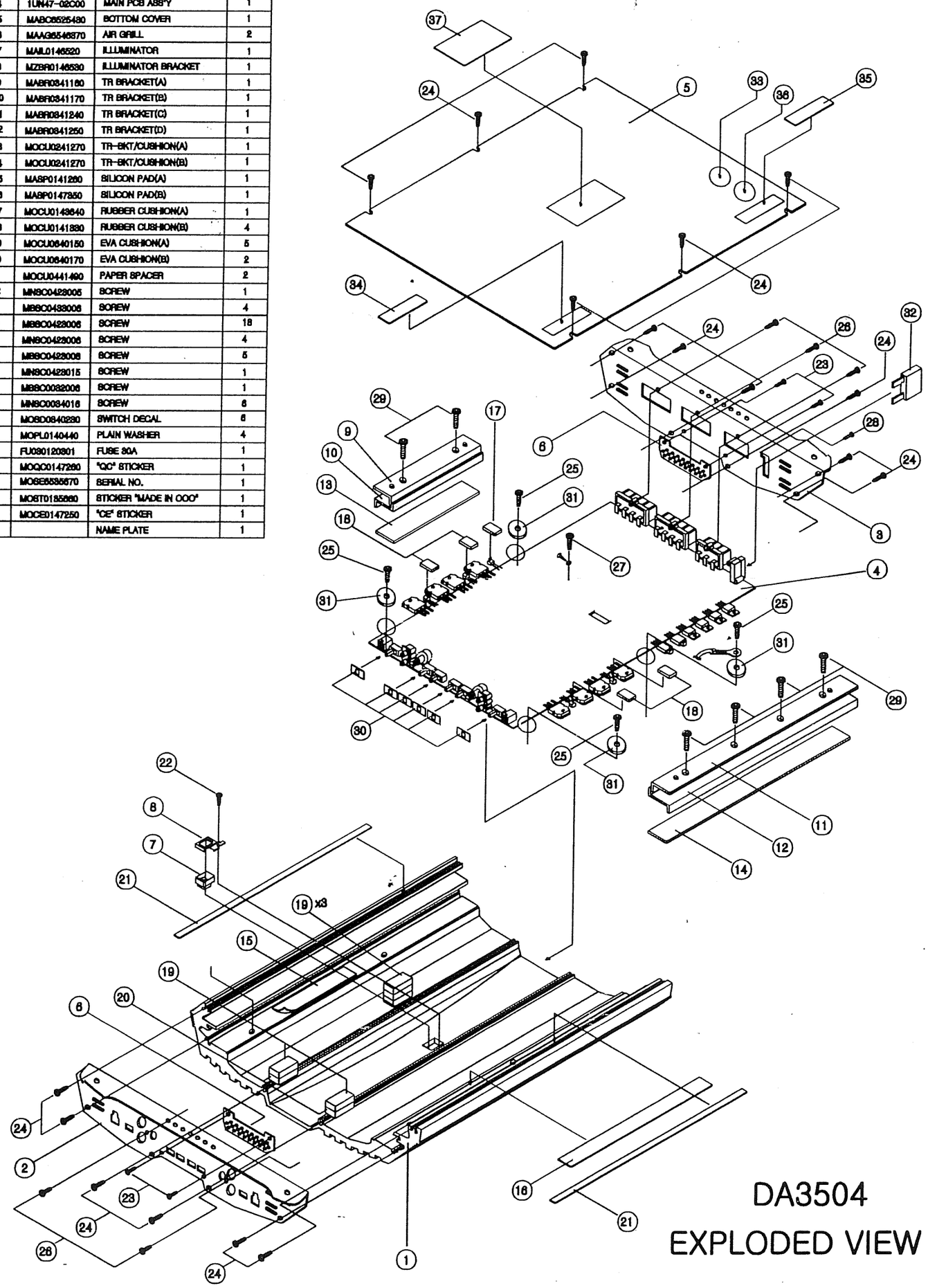


PIN NO : 1,9	+15V
PIN NO : 5	-15V

(U301,302,303,401,402)


A
B
C
D
E
1
2
3
4
5
6
7
8
CASE GND
C40 473P
C41 473P
C39 473P
R61 22K
R06 12K
C04 473P
Q01 A1023Y
R01 4.7K
R02 4.7K
C03 10/25V
R03 15K
Q02 C3198GR
R04 4.7K
R05 10/0.25W
+14.3V
L01 CL-300+
F01 30A
D01 PR3004
C01 100/25V"SXE"
TER01 POWER-TERMINAL
14.4V
REMOTE
GROUND
D07 1N4004
+13.6V
+14.9V
+15.3V
+14.4V
+5V
+10.3V
+25.5V
-25.5V
-22.6V
+15V
-15V
D05 1N4148
D06 1N4148
R43 100
R44 100
R46 1K
R47 1K
R48 100
R49 100
Q08 IRFZ44
Q09 IRFZ44
Q10 1266GR
Q11 IRFZ44
Q12 IRFZ44
Q07 1266GR
R41 220/0.25W
R42 220/0.25W
13.2Vp-p
C12 1000/35V"RX"
C13 000/35V"RX"
C14 104P
T01 36PHI
6T
6T
11T
11T
D11 2SC25M-020
D12 2SC25M-020
L03 CL-500
L04 CL-500
R52 100/2W
C21 222(M)
C22 470/35V
C24 4700/35V
C26 473P
C23 470/35V
C27 4700/35V
C29 473P
R53 10K/0.5W
R60 220/2W
D13 1N5242
C30 220/16V
LAMP01 14V/80mA
U01 TL494CN
C05 104P
R07 4.7K
Q03 A1266GR
R09 10K
C06 100/16V
R11 33K
C09 102(M)
R16 27K
C10 100/16V
U02 KIA393P
R24 4.3K
R23 6.8K
R22 22K
R21 2.2M
R10 4.7K
R25 3.3K
TH01 50KTH
C11 47/16V
Q05 C3198GR
R20 47K
C19 1/50V
Q04 1266GR
R19 150K
R17 10K
R18 12K
D14 1N4148
R54 220K
D15 1N4148
R55 10K
C31 22P
Q23 K30A
C32 10/16V
D16 PR1504
D17 PR1504
D18 PR1504
D19 PR1504
C36 100/35V
R59 2.2K
C37 10/25V
D21 1N5245
C38 220/16V
Q22 C1027Y
C33 100/35V
R57 2.2K
C34 10/25V
D20 1N5245
C35 220/16V
Q21 A1023Y

REF.NO	PARTS NO	PARTS NAME	Q'TY
1	MAHB6525440	MAIN HEAT SINK	1
2	MAFP6525390	FRONT PANEL	1
3	MARP6525410	REAR PANEL	1
4	1UN47-02C00	MAIN PCB ASS'Y	1
5	MABC6525480	BOTTOM COVER	1
6	MAAG6546870	AIR GRILL	2
7	MAIL0146520	ILLUMINATOR	1
8	MZBR0146530	ILLUMINATOR BRACKET	1
9	MABR0841180	TR BRACKET(A)	1
10	MABR0841170	TR BRACKET(B)	1
11	MABR0841240	TR BRACKET(C)	1
12	MABR0841250	TR BRACKET(D)	1
13	MOCU0241270	TR-BKT/CUSHION(A)	1
14	MOCU0241270	TR-BKT/CUSHION(B)	1
15	MASP0141260	SILICON PAD(A)	1
16	MASP0147350	SILICON PAD(B)	1
17	MOCU0143640	RUBBER CUSHION(A)	1
18	MOCU0141880	RUBBER CUSHION(B)	4
19	MOCU0640150	EVA CUSHION(A)	5
20	MOCU0640170	EVA CUSHION(B)	2
21	MOCU0441490	PAPER SPACER	2
22	MNSC0423005	SCREW	1
23	MBSC0433006	SCREW	4
24	MBSC0423006	SCREW	18
25	MNSC0423006	SCREW	4
26	MBSC0423008	SCREW	5
27	MNSC0423015	SCREW	1
28	MBSC0032006	SCREW	1
29	MNSC0034016	SCREW	6
30	MOSC0840230	SWITCH DECAL	6
31	MOPL0140440	PLAIN WASHER	4
32	FU0301203O1	FUSE 30A	1
33	MOQC0147260	"QC" STICKER	1
34	MOSE5535670	SERIAL NO.	1
35	MOST0185060	STICKER "MADE IN CCC"	1
36	MOCE0147250	"CE" STICKER	1
37		NAME PLATE	1



DA3504
EXPLODED VIEW